L Number	Hits	Search Text	DB	Time stamp
-	9940	(((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/04 12:08
-	3516	(((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/06 11:35
-	559	((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) and processor and RAM	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 14:50
-	480	(((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) and processor and RAM) and @ad < "20000612"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/04 18:18
-	3	((((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) and processor and RAM) and @ad < "20000612") and altera.as.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/04 15:44
-	480	(((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) and processor and RAM) and @ad < "20000612"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 14:11
-	480	(((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) and processor and RAM) and @ad < "20000612"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 14:16
-	48	((((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) and processor and RAM) and @ad < "20000612") and (PLD FPGA EEPROM PROM)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 14:38
-	2	4769642.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 14:38
-	3516	(((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 14:52
-	3036	((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) not ((((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) and processor and RAM) and @ad < "20000612")	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 14:52
-	570	(((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) not ((((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) and processor and RAM) and @ad < "20000612")) and processor	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 14:52

-	719	(((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) not ((((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) and processor and RAM) and @ad < "20000612")) and (microprocessor micro-processor processor)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 14:53
-	109	((((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) not ((((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) and processor and RAM) and @ad < "20000612")) and (microprocessor micro-processor processor)) and ((arbitrate arbitration access) same RAM)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 14:55
-	50	(((((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) not ((((((multi multiple dual plural) adj1 (port ported)) adj2 (cache memory RAM)).ti,ab.) and processor and RAM) and @ad < "20000612")) and (microprocessor micro-processor processor)) and ((arbitrate arbitration access) same RAM)) and @ad < "20000612"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 18:10
-	2	5802579.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 16:14
-	18	configurable adj1 SRAM	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 18:12
-	12	(configurable adj1 SRAM) and @ad<20000612	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/05 18:12
-	5	09/039891	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/05/06 11:35

Top Subjects

> CD Burners
> Home Networking
> RAM
> Computer Viruses
> Web Servers

Categories

How ROM Works

by Jeff Tyson

printable version free newsletter

› Introduction to How
› ROM Types
› ROM at Work
› PROM
› EPROM
› EEPROMs and Flas
› Lots More Informati
› Shop or Compare P

EPROM

Working with ROMs and PROMs can be a wasteful business. Even though th inexpensive per chip, the cost can add up over time. **Erasable programmabl memory** (EPROM) addresses this issue. EPROM chips can be rewritten mar Erasing an EPROM requires a special tool that emits a certain frequency of u light. EPROMs are configured using an EPROM programmer that provides vc specified levels depending on the type of EPROM used.

Once again we have a grid of columns and rows. In an EPROM, the cell at ea intersection has two transistors. The two transistors are separated from each oxide layer. One of the transistors is known as the **floating gate** and the othe **control gate**. The floating gate's only link to the row (**wordline**) is through the As long as this link is in place, the cell has a value of 1. To change the value t curious process called **Fowler-Nordheim tunneling**. **Tunneling** is used to al placement of electrons in the floating gate. An electrical charge, usually 10 to applied to the floating gate. The charge comes from the column (**bitline**), ente gate and drains to a ground.

This charge causes the floating-gate transistor to act like an electron gun. The electrons are pushed through and trapped on the other side of the thin oxide l a negative charge. These negatively charged electrons act as a barrier betwe gate and the floating gate. A device called a **cell sensor** monitors the level of passing through the floating gate. If the flow through the gate is greater than 5 the charge, it has a value of 1. When the charge passing through drops below percent threshold, the value changes to 0. A blank EPROM has all of the gate giving each cell a value of 1.

> Hardware
> Internet
> Peripherals
> Security
> ShortStuff
> Software
> Browse the Computer Library

Explore Stuff

> Lidrock.com
> Big List of Articles
> Get the Newsletter
> Shop or Compare Prices
> Search HSW and the Web

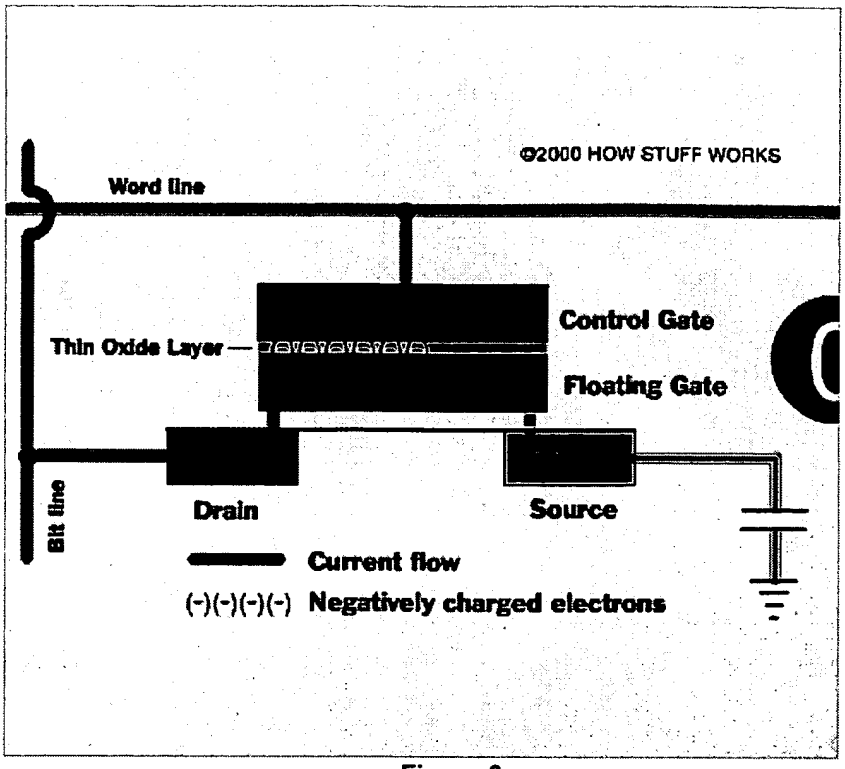

Figure 3

To rewrite an EPROM, you must erase it first. To erase it, you must supply a l strong enough to break through the negative electrons blocking the floating g standard EPROM, this is best accomplished with UV light at a frequency of 2 this particular frequency will not penetrate most plastics or glasses, each EPF a quartz window on top of it. The EPROM must be very close to the eraser's l within an inch or two, to work properly.

An EPROM eraser is not selective, it will erase the entire EPROM. The EPRO removed from the device it is in and placed under the UV light of the EPROM several minutes. An EPROM that is left under too long can become **over-era** case, the EPROM's floating gates are charged to the point that they are unab electrons at all.

<< Prev Page Intro Next Page >>

HSW Home

Table of Contents:

› Introduction to How ROM Works
› ROM Types
› ROM at Work
› PROM
› EPROM
› EEPROMs and Flash Memory
› Lots More Information
› Shop or Compare Prices

Google Web Images Groups News Froogle[New!] more »
EEPROM Search Advanced Search Preferences

Web

Results **1** - **10** of about **714,000** for **EEPROM** [definition]. (**0.17** seconds)

What is **EEPROM**? - A Word Definition From the Webopedia Computer ...
This page describes the term **EEPROM** and lists other pages on the Web where you can find additional information. internet.com, ... **EEPROM** ...
www.webopedia.com/TERM/E/EEPROM.html - 38k - May 5, 2004 - Cached - Similar pages

electrically erasable programmable ROM - a whatis definition - see ...
EEPROM (electrically erasable programmable read-only memory) is user-modifiable read-only memory (ROM) that can be erased and reprogrammed (written to ...
www.whatis.com/definition/0,,sid9_gci213928,00.html - 39k - Cached - Similar pages

Atmel Serial **EEPROM** Homepage
Serial **EEPROM**. Serial-interface EEPROMs are used in a broad spectrum of consumer, automotive, telecommunication, medical, industrial and PC related markets. ...
www.atmel.com/products/Serial/ - 15k - May 4, 2004 - Cached - Similar pages

Atmel Parallel **EEPROM** Homepage
Parallel **EEPROM** Atmel is the WORLD #1 manufacturer of Parallel **EEPROM** products. These products are the highly flexible members of ...
www.atmel.com/products/Parallel/ - 15k - May 5, 2004 - Cached - Similar pages
[More results from www.atmel.com]

EEPROM Programmer
EEPROM Programmer. **EEPROM** (E 2 PROM) is very easy to worth with, since it just acts like a block of SRAM. No special voltages, no mystical voodoo or anything. ...
ucsub.colorado.edu/~kominek/hardware/**eeprom**.html - 4k - Cached - Similar pages

STMicroelectronics | Serial **EEPROM** | Home
EEPROM and Serial NVM Serial Non-Volatile Memories include **EEPROM**, Serial Flash, Application Specific Standard Products and Contactless Memories. ...
www.st.com/stonline/products/families/memories/**eeprom**/ - 24k - May 4, 2004 - Cached - Similar pages

Fairchild - Logic, Memory, **EEPROM** and Discrete Parts
Fairchild - Logic, Memory, **EEPROM** and Discrete Parts. In March of 1997, National Semiconductor sold the Logic, Memory, **EEPROM** and ...
www.national.com/fairchild/part.html - 35k - Cached - Similar pages

OOPic 8 pin Program **EEPROM** sockets
OOPic's 8-pin **EEPROM** Sockets. 8-pin **EEPROM** socket ... 3, A2, Address 0, 6, ESCL, **EEPROM** I2C Serial Clock. 4, GND, 0 Volt reference, 5, ESDA, **EEPROM** I2C Serial Data.
www.oopic.com/socket8.htm - 5k - Cached - Similar pages

The Serial **EEPROM** - Xbox-Linux
... The Serial **EEPROM**. ... Two routines that read bytes from and write bytes to the serial **EEPROM** and do no error handling are shown below: ...
xbox-linux.sourceforge.net/docs/**eeprom**.html - 7k - Cached - Similar pages

FTDI Product Data
... FT245 (AM / BM) and FT8U100AX designs have the option to program manufacturer-specific information into their designs via an optional 93C46 **EEPROM** device. ...
www.ftdichip.com/FTUtilities.htm - 18k - Cached - Similar pages

Goooooooooogle ▶
Result Page: 1 2 3 4 5 6 7 8 9 10 **Next**

EEPROM Search

Search within results | Language Tools | Search Tips | Dissatisfied? Help us improve

Google Home - Advertising Programs - Business Solutions - About Google